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Means of Daily Areas of Umbræ, Whole Spots, and Faculæ upon the Sun's Disk, as measured on Photographs taken at the Royal Observatory, Greenwich, for each Rotation of the Sun, from 1877, December 22, to 1879, December 28.

[In continuation of the results printed in the *Monthly Notices*, vol. xxxix., p. 515.]

(*Communicated by the Astronomer Royal.*)

The Mean Daily Areas have been formed by taking the Means of the Areas for each day of observation throughout each rotation of the Sun, and are expressed in millionths of the Sun's visible hemisphere. Usually two photographs are taken on each day of observation.

No. of Rotation.	Date of Commencement of each Rotation.		No. of Days of Obs.	Means of Daily Areas.		
				Umbræ.	Whole Spots.	Faculæ.
65	1877	Dec. 22	7	0	5	128
66	1878	Jan. 16	8	8	66	81
67		Feb. 10	8	5	25	129
68		Mar. 8	6	11	50	0
69		Apr. 2	9	0	0	0
70		Apr. 28	10	0	0	11
71		May 23	8	16	75	347
72		June 17	17	6	35	105
73		July 13	16	0	1	64
74		Aug. 7	13	0	0	8
75		Sept. 1	16	19	90	180
76		Sept. 27	14	0	0	90
77		Oct. 22	10	6	23	35
78		Nov. 17	4	0	0	85
79		Dec. 12	2	0	0	0
80	1879	Jan. 6	2	0	0	0
81		Feb. 1	7	0	0	29
82		Feb. 26	10	0	0	0
83		Mar. 23	9	11	56	124
84		Apr. 18	11	4	17	51
85		May 13	10	0	0	63
86		June 8	12	12	47	60
87		July 3	7	2	15	370
88		July 28	12	11	29	80
89		Aug. 23	11	16	76	66
90		Sept. 17	12	14	45	268
91		Oct. 12	9	45	206	336
92		Nov. 7	9	25	108	211
93		Dec. 2	6	4	17	618

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Means of Daily Areas of Umbræ, Whole Spots, and Faculæ upon the Sun's Disk, as measured on Photographs taken at the Royal Observatory, Greenwich, for each Year, from 1873 *to* 1879.

The Mean Areas are expressed in millionths of the Sun's visible hemisphere.

	Means of Daily Areas.		
Year.	Umbræ.	Whole Spots.	Faculæ.
1873	116	678	2882
1874	83	583	1095
1875	45	255	475
1876	25	132	226
1877	20	94	168
1878	5	25	84
1879	10	44	163

Many of the photographs taken during the early part of 1874 do not show the faculæ with sufficient distinctness to allow of their measurement; the mean area of faculæ given for that year is therefore too small.

The mean daily area of faculæ for the half-year beginning 1874, July 2, is 1257.

From these results it appears that the minimum both for Sun-spots and faculæ occurred about the end of 1878 and the beginning of 1879, and that there has since been a marked increase in the number of both.

Royal Observatory, Greenwich,
1880, *Jan.* 9.

Note referring to Observations and Estimations of the Brightness of Mars, which ought to be made in February and March 1880.

By A. Marth, Esq.

The apparent brightness of the planet *Mars* is now decreasing at such a rate, that in the course of February it will be reduced to that of some of the fixed stars of the first magnitude. The planet is unusually well placed for comparison with α *Tauri* and α *Orionis*, both stars of reddish hue and consequently better adapted for the purpose than others of different colour, and observers who may be favoured by clear evenings in the latter part of February and beginning of March ought therefore not to lose their opportunities for making such photometric measurements or naked-eye estimations as will serve to fix the time when *Mars* equals in brightness α *Orionis* and the time when it equals α *Tauri*. Seventy-nine years ago, on a certain evening in February 1801, Olbers estimated that *Mars* appeared just as

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